

ORIGINAL

RECEIVED

JUN - 8 2004

Int'l Bureau

JUN 15 2004

From Office

Before the

Federal Communications Commission  
Washington, D.C. 20554

In the Matter of )  
 )  
**XM Radio Inc.** )  
 )  
Request for Special Temporary Authority to Operate )  
Additional Satellite Digital Audio Radio Service )  
Terrestrial Repeaters )

Federal Communications Commission  
Office of Secretary

File No. SAT-STA-20031112-00371

Received

JUN 21 2004

Policy Branch  
International Bureau

**RESPONSE OF XM RADIO INC.**

XM Radio Inc. ("XM") hereby files this Response to the Opposition filed by the WCS Coalition to XM's request for Special Temporary Authority ("STA") to operate forty-nine Satellite Digital Audio Radio Service ("SDARS" or "satellite radio") terrestrial repeaters in new markets. As discussed herein, the International Bureau ("Bureau") should promptly grant XM's request. Allowing XM to operate these additional repeaters will serve the public interest by allowing XM to provide service in areas currently suffering gaps in satellite coverage. Moreover, the Bureau has already authorized XM's competitor, Sirius Satellite Radio Inc. ("Sirius"), to operate repeaters in these new markets, meaning that denial of this STA request will afford Sirius an unfair competitive advantage relative to XM. In addition, operation of these repeaters will not cause interference to Wireless Communications Service ("WCS") facilities, considering the *de minimis* number of repeaters requested, the fact that the vast majority will operate with an EIRP less than 2 kW (which the WCS licensees previously have not objected to), and the fact that there are no WCS facilities in operation today. Finally, grant of this STA request will not impact the ongoing negotiations between the satellite radio and WCS licensees regarding final rules to govern the operation of terrestrial repeaters.

## Background

*XM.* In March 1997, the Commission adopted service and licensing rules for satellite radio and recognized the enormous public interest benefits this new consumer-based mass media service would offer for the American public.<sup>1</sup> In April 1997, the Commission conducted an auction for two satellite radio licenses. XM was the successful bidder at the auction to provide service in the 2332.5-2345 MHz band, paying approximately \$90 million to the United States Treasury. In March 2001, XM successfully launched its first satellite, XM Rock, to the 115°W orbital location. In May 2001, XM successfully launched its second satellite, XM Roll, to the 85°W orbital location. XM Radio initiated commercial service in September 2001, providing high-quality, continuous, multi-channel audio service throughout the United States. XM has proven to be a great success, with more than 1.68 million subscribers as of April 1, 2004.

*Terrestrial Repeater Rulemaking.* In March 1997, the Commission issued a *Further Notice of Proposed Rulemaking* (“*FNPRM*”) seeking comment on final rules to govern operation of terrestrial repeaters. *SDARS Order and FNPRM.* The Commission also sought public comment on the satellite radio licensees’ repeater plans and the rules for repeater operations on two subsequent occasions, first in January 1998 and then in February 2000.<sup>2</sup> It was not until December 2000, almost four years after the *FNPRM* was issued, that any WCS licensee claimed that terrestrial repeaters would cause interference to WCS facilities.<sup>3</sup> This *FNPRM* is still pending. While the rulemaking is pending, the satellite radio and WCS licensees have engaged

---

<sup>1</sup> See, e.g., *Establishment of Rules and Policies for the Digital Audio Radio Satellite Service in the 2310-2360 MHz Frequency Band, Report and Order, Memorandum Opinion and Order*, 12 FCC Rcd 5754, ¶ 1 (1997) (“*SDARS Order and FNPRM*”).

<sup>2</sup> Public Notice, Report No. SPB-112 (December 23, 1997) (comments due January 1998); Public Notice, IB Docket No. 95-91 (January 21, 2000) (comments due February 2000).

<sup>3</sup> See Letter from Paul J. Sinderbrand, Counsel to WCA, to Magalie Roman Salas, IB Docket No. 95-91 (December 15, 2000).

in private negotiations regarding final rules to govern operation of terrestrial repeaters, but have not yet come to an agreement.

*Original Terrestrial Repeater STA.* On July 12, 2001, XM filed a request for STA to operate terrestrial repeaters for commercial service.<sup>4</sup> XM provided the technical parameters for the 778 repeaters it sought to operate with an EIRP exceeding 2 kW. XM did not provide the technical parameters for the repeaters it sought to operate with an EIRP equal to or less than 2 kW. The STA request was opposed by a number of WCS licensees that claimed XM had not met the standard for grant of the STA, the repeaters would cause interference to WCS operations, and the Bureau should require XM to provide the technical parameters for the repeaters it proposed to operate with an EIRP equal to or less than 2 kW.<sup>5</sup>

The Bureau rejected these claims and granted XM's STA request. *See XM STA Order.*<sup>6</sup> The Bureau found that grant of the STA would serve the public interest, noting that it "was clearly contemplated that the repeaters were to be part of the proposed satellite systems" and that XM "needs to employ terrestrial repeaters to provide adequate service." *Id.* ¶ 7. As far as the interference claims of the WCS licensees, the Bureau noted that these concerns would be addressed in the pending rulemaking proceeding. *Id.* ¶ 13. While these rules are being developed, the Bureau authorized XM to operate its repeaters for commercial service provided that they do not cause interference to any permanently authorized radiocommunication facilities.

---

<sup>4</sup>XM Radio Inc. Request for Special Temporary Authority, File No. SAT-STA-20010712-00063 (July 12, 2001).

<sup>5</sup>*See XM Radio, Inc., Application for Special Temporary Authority to Operate Satellite Digital Audio Radio Service Complementary Terrestrial Repeaters, Order and Authorization*, DA 01-2172 (rel. September 17, 2001), at ¶ 4 ("*XM STA Order*").

<sup>6</sup>The Bureau granted Sirius STA to operate repeaters for commercial service on the same date. *Sirius Satellite Radio Inc., Order and Authorization*, 24 CR 840, 2001 FCC LEXIS 4931, DA 01-2171 (Sept. 17, 2001).

*Id.* ¶¶ 14, 18(b). With respect to repeaters operating with an EIRP equal to or less than 2 kW, the Bureau granted XM nationwide authority to operate these repeaters. *Id.* ¶ 17. The Bureau required XM to file a list of these repeaters and limited XM's authority to repeaters identified on the list. *Id.* XM eventually filed a list containing technical parameters for 465 such repeaters.<sup>7</sup>

*Additional STAs to Operate Terrestrial Repeaters.* After initiating service, Sirius and XM identified additional markets beyond those listed in their original STAs in which terrestrial repeaters were needed to fill gaps in coverage. Sirius received authority to operate a repeater in Jackson, Mississippi in March 2002<sup>8</sup> and later received authority to operate 135 repeaters, many in new markets, in December 2003.<sup>9</sup>

On August 13, 2002, XM filed a request for STA to operate two additional terrestrial repeaters, one in Little Rock, Arkansas and one in Tulsa, Oklahoma.<sup>10</sup> The Bureau placed this STA request on *Public Notice* in September 2002, and it was unopposed. See *Report No. SPB-00119* (September 3, 2002). The Bureau granted this STA request on September 30, 2002. The Bureau has also authorized both XM and Sirius to operate in-store signal boosters.<sup>11</sup>

XM later identified additional areas where terrestrial repeaters were needed. On November 26, 2003, XM filed the above-captioned request to operate forty-nine repeaters in new

---

<sup>7</sup> See Letter from Bruce D. Jacobs, Counsel for XM, to Ms. Magalie Roman Salas, FCC, File No. SAT-STA-20010712-00063 (November 13, 2001).

<sup>8</sup> Sirius Satellite Radio Inc., Request for Special Temporary Authority, File No. SAT-STA-20020222-00028 (filed February 22, 2002; granted March 12, 2002).

<sup>9</sup> Sirius Satellite Radio Inc., Request for Special Temporary Authority, File No. SAT-STA-20030827-00299 (filed August 27, 2003; granted December 29, 2003).

<sup>10</sup> XM Radio Inc., Request for Special Temporary Authority, File No. SAT-STA-20020815-00153 (filed August 13, 2002; granted September 30, 2002).

<sup>11</sup> XM Radio Inc., Request for Special Temporary Authority, File No. SAT-STA-20030409-00076 (filed April 9, 2003; granted June 26, 2003); Sirius Satellite Radio Inc., Request for Special Temporary Authority, File No. SAT-STA-20030411-00075 (filed April 11, 2003; granted June 26, 2003).

areas.<sup>12</sup> Of these forty-nine repeaters, thirty-seven operate with an EIRP less than or equal to 2 kW and the remaining twelve use sectorized antennas, which reduce any potential for interference. XM explained that grant of this STA will serve the public interest by ensuring that these areas receive adequate satellite radio service. *XM STA Request* at 2-3. XM certified that its operation of these additional repeaters will comply with the same conditions the Commission imposed on XM in granting its original STA, including operating the repeaters on a non-interference basis. *Id.* at 3. XM contacted each of the entities that holds a WCS license in any of the markets in which it planned to operate a new repeater and informed them of this request. *Id.* Only Verizon objected to XM's proposal to operate new repeaters and only to the extent that such operations would increase the potential for interference to its WCS facilities.

The Bureau placed XM's request on *Public Notice* on April 23, 2004. *See* Report No. SAT-00211 (April 23, 2004). The WCS Coalition filed an Opposition on May 24, 2004 making three arguments.<sup>13</sup> First, it argues that XM has not demonstrated extraordinary circumstances justifying the STA. *WCS Opposition* at 4-5. Second, it claims that operation of the proposed repeaters will increase the potential for interference to WCS facilities. *Id.* at 2. Third, it claims that grant of the STA will adversely impact the ongoing negotiations regarding final rules for terrestrial repeaters. *Id.* at 3-4. As discussed below, these arguments are wrong for any of several independent reasons.

---

<sup>12</sup> XM Radio Inc., Request for Special Temporary Authority, File No. SAT-STA-20031112-00371 (filed November 26, 2003) ("*XM STA Request*").

<sup>13</sup> Opposition of WCS Coalition, File No. SAT-STA-20031112-00371 (May 24, 2004) ("*WCS Opposition*").

## Discussion

### I. XM Has Demonstrated Extraordinary Circumstances and Public Interest Benefits Justifying Grant of the STA

The Commission's rules authorize the Bureau to grant STAs upon a finding "that there are extraordinary circumstances requiring temporary operations in the public interest." 47 C.F.R. § 25.120(b). XM has met this burden in this case. In granting XM's original STA to operate repeaters, the Bureau explained that terrestrial repeaters are needed to "provide adequate service." *XM STA Order* ¶ 7. XM has identified areas where it is not capable of providing adequate service without the use of terrestrial repeaters. Satellite signals are blocked in these markets, just as they are in areas where XM already operates repeaters. Consumers residing in or driving through these areas deserve the benefits of satellite radio as much as consumers in areas where XM already operates repeaters. The WCS Coalition contends that STA is not justified because XM is "running efficiently as evidenced by [its] subscribers numbers and . . . marketing campaigns." *WCS Opposition* at 5. But the success of the service simply demonstrates how much consumers value satellite radio and how people in the markets covered by the above-captioned STA should not be deprived of the service.

Grant of this STA is also consistent with precedent. Since granting XM and Sirius their original STAs, the Bureau has granted XM and Sirius additional STAs to operate repeaters beyond those authorized in their original STAs, having found extraordinary circumstances and public interest benefits justifying grant. There is no basis to treat XM's latest request any differently. Moreover, the Bureau has already granted Sirius authority to operate repeaters in the very same markets where XM proposes to operate repeaters in the above-captioned request. Thus, Sirius is able to operate repeaters in these markets while XM currently is not. Such a

result disserves the public interest by providing one satellite radio licensee with an unfair competitive advantage.

An STA is needed now prior to adoption of final rules governing these repeaters because it is not possible to estimate when any such rules will become effective. While XM is hopeful that an agreement with the WCS licensees will be reached soon, this is just the first step towards adoption of final rules. Even after the satellite radio and WCS licensees reach an agreement, the Commission will have to adopt final rules and these rules will have to become effective. Consumers in areas not receiving adequate satellite signal coverage should not be deprived of the benefits of satellite radio while the parties try to resolve the remaining technical issues governing terrestrial repeaters.

Finally, the WCS Coalition argues that the Commission's rules provide that "marketing considerations" are not a sufficient basis for grant of an STA. *WCS Opposition* at 4-5 (citing 47 C.F.R. § 25.120(b)). The Bureau rejected this argument in granting XM's original STA request. *XM STA Order* ¶ 8. The Bureau noted that this language was included in the rule to address routine applications that could normally be granted within sixty days, such as routine domestic earth station applications. *Id.* The Bureau held that this rule did not apply to a request to operate SDARS terrestrial repeaters. *Id.*

## **II. Operation of the Proposed Repeaters Will Not Increase the Potential for Interference to WCS Licensees**

The WCS Coalition argues that operation of the proposed repeaters will increase the potential for interference to WCS facilities, but it offers no evidence to support this claim. At present, not one WCS licensee is actually providing commercial service, thus any claims of interference are only speculative. Moreover, the WCS Coalition does not provide any technical analysis demonstrating even the theoretical possibility of interference resulting from operation of

the proposed repeaters. Such generalized and unsupported claims of interference are not a sufficient basis upon which to deny XM's STA request.

The inability of the WCS Coalition to demonstrate even the possibility for interference is not surprising given that XM has requested authority to operate only forty-nine new repeaters and the vast majority of these repeaters (thirty-nine) will operate with an EIRP less than or equal to 2 kW. In granting XM's original STA request, the Bureau noted that the WCS licensees had not objected to repeaters operating with an EIRP less than or equal to 2 kW.<sup>14</sup> Indeed, XM's original STA provided it with "nationwide" authority to deploy repeaters with an EIRP of 2 kW or less and only required XM to file a list of these repeaters it intended to operate after grant of the STA.<sup>15</sup> With the present STA request, XM is simply adding 37 additional repeaters to its nationwide authority to deploy repeaters with an EIRP of 2 kW or less. This is fully consistent with the Commission's proposal to allow the satellite radio licensees to deploy an unlimited number of repeaters with an EIRP of 2 kW or below.<sup>16</sup>

Of the remaining 12 repeaters with an EIRP exceeding 2 kW, all use sectorized antennas. XM has explained previously in the repeater rulemaking that sectorized antennas focus energy in

---

<sup>14</sup> *XM STA Order* ¶ 8 ("We agree with XM that [] the focus of the party's technical interference objections has been on repeaters operating above 2 kW EIRP . . ."); *id.* ¶ 12 (noting that "AT&T Wireless (AWS) states 'AWS and other WCS licensees have advocated that SDARS terrestrial repeaters be limited to no more than 2 kW EIRP.' AWS accepts SDARS repeater operation at 2 kW and below and states 'AWS continues to believe that a 2kW maximum is the appropriate level for all services in the band, including SDARS . . .'"); *see also* Comments of Metricom, File No. SAT-STA-20010712-00063 (August 21, 2001) at 8 ("Metricom's system can accommodate the operations of SDARS terrestrial repeaters at power levels at or below 2 kW EIRP"); Comments of Wireless Communications Association International, Inc., File No. SAT-STA-20010712-00063 (August 21, 2001) at 5-6; Opposition of Worldcom, Inc., File No. SAT-STA-20010712-00063 (August 21, 2001) at 2.

<sup>15</sup> *XM STA Order* ¶ 17 ("we grant XM Radio STA to operate complementary terrestrial repeaters with an EIRP at or below 2 kW nationwide").

<sup>16</sup> *See Public Notice*, DA No. 01-2570, Report No. SPB-176, IB Docket No. 95-91 (November 1, 2001), at 4.

a narrow beamwidth, with no potential for interference outside of this beamwidth.<sup>17</sup> XM has accordingly advocated averaging the power of a repeater using a sectorized antenna over 360 degrees to more accurately describe the true impact of the interference environment. The Commission has adopted this methodology for MDS and ITFS licensees. 47 C.F.R. §§ 21.904(a), 74.935(a). When using this measurement technique, the majority of the proposed repeaters with an EIRP greater than 2 KW have an EIRP equal to or less than 2 kW when power is averaged over 360 degrees.

### **III. Grant of the STA Will Not Harm the Negotiations Between the Satellite Radio and WCS Licensees Regarding Final Rules for Operation of Terrestrial Repeaters**

Despite the claims of the WCS Coalition, grant of this STA will have no impact on the ongoing negotiations regarding final rules to govern terrestrial repeaters. XM agrees with the WCS Coalition that grant of the STA should be subject to any agreement reached between the parties and to the final rules adopted by the Commission to govern operation of terrestrial repeaters. Moreover, XM agrees that operation of these repeaters will be at XM's own risk pending adoption of these rules. Thus, grant of the STA will not vest in XM any right or expectation to continue to be able to operate these repeaters after conclusion of any agreement between the parties and adoption of final rules by the Commission. This condition is sufficient to ensure that grant of this STA will not impact the ongoing negotiations.

While the WCS Coalition makes the vague argument that grant of the STA will "alter the interference environment that forms the basis of the negotiations," this is not the case. As an initial matter, the Bureau already granted Sirius authority less than six months ago to operate 135 repeaters, many in the same new markets where XM seeks authority. The WCS licensees never

---

<sup>17</sup> Comments of XM Radio Inc., IB Docket No. 95-91 (December 14, 2001), at 8-12; Reply Comments of XM Radio Inc., IB Docket No. 95-91 (December 21, 2001), at 6-7.

objected to Sirius' request or sought reconsideration after grant, thus conceding that operation of these additional repeaters in new markets would not impact the ongoing negotiations. XM's request is even more benign considering it has only requested to operate about one-third the number of new repeaters that Sirius requested. The same kinds of interference considerations are presented by the repeaters XM proposes to operate as are presented by the repeaters the Bureau has already authorized XM and Sirius to operate. It is hard to fathom how allowing XM to increase its total number of authorized repeaters by 49 (a increase of less than 4%) can have any impact on the pending negotiations.

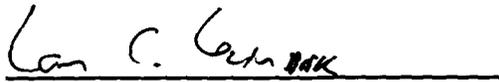
### Conclusion

For the foregoing reasons, XM Radio urges the Commission to act consistently with the views expressed herein.

Respectfully submitted,



Bruce D. Jacobs  
David S. Konczal  
**SHAW PITTMAN LLP**  
2300 N Street, N.W.  
Washington, D.C. 20037  
(202) 663-8000



Lon C. Levin  
Senior Vice President  
**XM RADIO INC.**  
1500 Eckington Place, N.W.  
Washington, D.C. 20002  
(202) 380-4000

June 8, 2004

## CERTIFICATE OF SERVICE

I, Sylvia A. Davis, a secretary with the law firm of Shaw Pittman LLP, hereby certify that on this 8th day of June 2004, served a true copy of the foregoing "Response" by first class United States mail, postage prepaid, upon the following:

Edmond Thomas\*  
Office of Engineering and Technology  
Federal Communications Commission  
445 12<sup>th</sup> Street, S.W.  
Washington, DC 20554

Bruce Franca\*  
Office of Engineering and Technology  
Federal Communications Commission  
445 12<sup>th</sup> Street, S.W.  
Washington, DC 20554

WCS Coalition  
c/o Mary O'Connor  
Wilkinson Barker Knauer, LLP  
2300 N Street, NW  
Suite 700  
Washington, DC 20037

Paul Posner  
Allegheny Communications  
Central States Communications  
1999 Gulfmart #514  
San Antonio, TX 78217

Andrew Kreig  
Wireless Communications  
Association International  
1140 Connecticut Avenue, N.W.  
Suite 810  
Washington, D.C. 20036-4001

Jennifer Gilsenan\*  
International Bureau  
Federal Communications Commission  
445 12<sup>th</sup> Street, S.W.  
Washington, DC 20554

Stephen Duall\*  
International Bureau  
Federal Communications Commission  
445 12<sup>th</sup> Street, S.W.  
Washington, DC 20554

Leslie Owsley  
Assistant General Counsel – Federal Regulatory  
Verizon Laboratories, Inc.  
1320 North Courthouse Road  
Arlington, VA 22201

Douglas I. Brandon  
AT&T Wireless Services  
1150 Connecticut Avenue, N.W.  
4<sup>th</sup> Floor  
Washington, D.C. 20036

Karen B. Possner  
BellSouth Corporation  
1133 21<sup>st</sup> Street, N.W.  
Suite 900  
Washington, D.C. 20036-3351

  
Sylvia A. Davis

\*By hand delivery